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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/849,136	05/04/2001	Szetsen Steven Lee	JCLA7097	1184
7590 J.C. Patents, Inc. 4 Venture, Suite 250 Irvine, CA 92618			EXAMINER DUONG, THANH P	
			ART UNIT 1764	PAPER NUMBER

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/849,136	LEE ET AL.	
	Examiner	Art Unit	
	Tom P Duong	1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/010,6865.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted prior art (Admission) in view of Buczek et al. (4,188,592) and Dimpfl (4,397,823). Regarding claims 1-2 and 10, Admission discloses a gas scrubber (Fig. 1, prior art) comprising: a gas inlet pipe (12) that provides the gas scrubber with gases to be processed; a chamber (22) of decomposition to which is connected the gas inlet pipe that delivers the gases to be processed, such that the gases are decomposed into a plurality of different byproducts (Admission, page 2, lines 1-2) through a thermal process in the chamber of decomposition; means for cooling (24) down the plurality of byproducts produced in the chamber of decomposition; and means for scrubbing (30) the plurality of byproducts produced in the chamber of decomposition. Admission fails to disclose a transparent means through which light can pass through, mounted onto the gas inlet pipe before the chamber of decomposition; a laser device arranged before the chamber of decomposition such that a laser beam, output by the laser device, passes through the transparent means to decompose the gases flowing in the gas inlet pipe into a plurality of gas radicals to initiate the reaction of decomposition. Buczek et al. teaches it is conventional to provide transparent means (windows 28) mounted on

the sidewall of chamber 22 to facilitate the passing of laser beam through the windows to excite the energy level of hydrogen fluoride gas (Col. 4, lines 30-34). Dimpfl makes it clear that a laser device with high power density eliminates pollutant from the gas streams (Col. 4, lines 11-45). Thus, it would have been obvious in view of Buczek and Dimpfl to one having ordinary skill in the art to modify apparatus of Admission with transparent means of Buczek to facilitate the transmission of laser beam and a laser device of Dimpfl to provide sufficient power to decompose the pollutant from the gas streams. Regarding claims 3-5, it would have been obvious in view of Buczek and Dimpfl to one having ordinary skill in the art to provide an optimum pipe diameter, gas flow rate, and distance of laser focal point to ensure the exiting gas stream is cleaned. In addition, the selection of such configuration and operating parameters are obvious matter of design choice or at least thru routine optimization. Regarding claim 6, Dimpfl appears to disclose an optimum laser power to remove the pollutant from the gas stream (Col. 4, lines 26-45). Regarding claim 7, both Admission and Buczek (Col. 6, lines 7-11) disclose the fluorinated process gas. Regarding claim 8, it would have been obvious in view of Buczek and Dimpfl to feed an optimum amount of fluorinated gas to ensure all the inlet gas is treated properly.

2. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted prior art (Admission) in view of Rostaing et al. (5,965,786). Admission discloses a gas scrubber (Fig. 1, prior art) comprising: a gas inlet pipe (12) that provides the gas scrubber with gases to be processed; a chamber (22) of decomposition to which is

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connected the gas inlet pipe that delivers the gases to be processed, such that the gases are decomposed into a plurality of different byproducts (Admission, page 2, lines 1-2) through a thermal process in the chamber of decomposition; means for cooling (24) down the plurality of byproducts produced in the chamber of decomposition; and means for scrubbing (30) the plurality of byproducts produced in the chamber of decomposition. Admission fails to disclose a microwave radiation generator device to decompose the gas flowing into the inlet pipe. Rostaing teaches a microwave generator 14 is used in the perfluorinated treatment apparatus (Fig. 1) to treat the effluent gas (Col. 6, lines 14-18 and Col. 3, lines 5-10)). Thus, it would have been obvious in view of Rostaing to one having ordinary skill in the art to modify the apparatus of Admission with a microwave radiation generator as taught by Rostaing to treat the perfluorinated gases.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom P Duong whose telephone number is (571) 272-2794. The examiner can normally be reached on 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tom Duong
July 9, 2004

TD

Glenn Calderola
Supervisory Patent Examiner
Technology Center 1700